On the White-toothed American Beaver.

By Dr. J. E. Gray, F.R.S.

The British Museum lately received from Dr. R. Brown three skulls of the American Beaver, which agree in all particulars, and especially in the form of the nasal bones, with the usual American-beaver skulls; but they differ from them in having white cutting-teeth, or with a more or less yellow tinge; all other American and European beavers I have seen have dark red-brown cutting-teeth. The variety may be catalogued as *Castor canadensis leucodonta*. I believe these skulls were procured on the north-west coast of America; but Dr. R. Brown did not state any special locality.

On the Occurrence of Beania mirabilis *and* Labrus mixtus *at Eastbourne, Sussex.* By F. C. S. Roper, F.L.S. &c.

To the Editors of the Annals and Magazine of Natural History.

Gentlemen,—The beauty and variety of animal and vegetable life on the rock-bound shores of our south-western and northern coasts, where every pool abounds with zoophytes, sponges, and algæ in profusion, has long made them favourite hunting-grounds for all who are interested in these branches of natural history. Many of the small and rare species of zoophytes are only recorded as occurring either on the coasts of Devon or Cornwall, of which the marine zoology has been so well worked up by the labours of Couch, Gosse, and the Rev. T. Hincks, or on the shores of Yorkshire or Northumberland, by Bean, Johnston, and others. The south and south-eastern coasts, where chalky, argillaceous, or sandy strata occur, are less favourable to the growth of these productions, and, as a necessary consequence, have not received the same amount of attention. At the same time I have little doubt that a careful search would be rewarded by the discovery of many species at present only known as inhabitants of more favoured localities. As an instance of this, I have to record the occurrence on the shore at Eastbourne of one of the rarest of the Polyzoa noticed by Dr. Johnston, the *Beania mirabilis*, which appears hitherto only to have been found at Scarborough (by Mr. Bean, its discoverer), at Peterhead, on our northern coasts, where it is said to be very rare, and at several localities in Devon and Cornwall, where, according to the Rev. T. Hincks's 'Catalogue of South-Devon and Cornish Zoophytes,' it is more abundant. The specimen I met with was growing at the base of a mass of *Flustra foliacea* thrown up on the shore by the late heavy gales; and, as Dr. Landsborough observes, the species "is so insignificant when seen by the naked eye, that it would easily be passed over as undeserving of regard." The specimen I have is barely one-fourth of an inch in length, with about eight of the peculiar calycles attached standing up erect from the radicles, which ramify over the lower part of the *Flustra*. From its occurrence on this zoophyte, it would appear to be from deep water rather than from the immediate vicinity of the shore, and probably, by dredging, might be procured in a living state.

I also wish to place on record the capture, this summer, of two specimens (male and female) of the Striped or Cook Wrasse (*Labrus mixtus* of Yarrell), which, from what I hear from the fishermen, is very rarely met with on this coast, though mentioned as an occasional visitor by Mrs. Merrifield in her 'Natural History of Brighton.' According to Couch, it is not uncommon on the Cornish coast, but appears to be rarely met with elsewhere. Both specimens were taken about the same spot, on a shoal about five miles off Eastbourne, the first in a lobster-pot, the other by a line. Of the male I have only seen the dried skin; but the female was brought to me soon after it was caught, and it has been preserved in glycerine, but has lost the brilliancy of colouring which makes it so resemble the wonderful productions of tropical seas in the intensity of the deep-blue stripes bordered by the brilliant orange and yellow tints that cover the mass of the body. Your obedient Servant,

F. C. S. Roper.

On the Origin and Increase of Bacteria. By Dr. A. Polotebnow.

The author's investigations, made in Prof. Wiesner's laboratory, at the Polytechnic Institute of Vienna, have led him to the following results:—

1. That a perfect genetic connexion exists between *Bacterium*, *Vibrio*, and *Spirillum*, and that these present no other differences but those of size and direction.

2. None of the Vibriones (*Vibrio*, *Bacterium*, and *Spirillum*) are independent organisms, but only derivatives (delicate mycelia) from the spores of fungi, especially those of *Penicillium glaucum*.

3. The development of the Vibriones from the spores of *Penicillium* may be best followed when the spores are exposed to the action of a high temperature (140°–212° F.).

4. The notion that Vibriones are developed in the filaments of mycelium from the granules occurring in the cells proves to be quite erroneous, as also that of the conversion of Vibriones into other higher forms (yeast &c.).—*Anzeiger der k. k. Akad. der Wiss. in Wien*, April 29, 1869, pp. 87–88.

Experiments to show that the Fins of Fishes are Regenerated only when their Basal Portion at least is left. By M. J. M. Philipeaux.

The author's experiments on the regeneration of the spleen of the mammalia and the limbs of the newts and axolotl have been extended by him to the fins of fishes.

He cut off the left ventral fin of some gudgeons at the level of the abdominal surface. The fishes were then placed in a basin under favourable conditions, and in eight months the fins were completely reproduced.

In a second series of experiments upon the same species the author entirely extirpated the right ventral fin, including all the small bones which support it; the fishes having been put into the basin, some of them died from the effects of the operation, whilst those which survived showed a perfect cicatrix eight months after the